

Goal 3

A premier, nationally recognized metropolitan research university in the University of Louisville.

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To become a premier, metropolitan research university, UofL must increase its degree and research productivity while enrolling a better prepared, more diverse student body. UofL's performance on Council key indicators in 2003-04 is summarized below. Goals for these indicators were established by the Council in consultation with the institutions.

CPE Key Indicators of Progress

UofL met its performance goals for:

- Undergraduate enrollment, which increased from 14,475 in 2002 to 14,724 in 2003.
- Graduate and first-professional enrollment, which increased from 5,958 in 2002 to 6,101 in 2003.
- The retention rate of first-time freshmen, which increased from 80.8 percent in 2002 to 83.2 percent in 2003.
- The number of community and technical college transfers to UofL, which increased from 342 in 2002 to 350 in 2003.
- Several benchmarks in the 2003 National Survey of Student Engagement (which assesses undergraduate student experience): First-year students scored UofL higher than predicted on the category *enriching educational experiences*. Seniors scored above predicted levels on four of five benchmarks: *level of academic challenge*, *active and collaborative learning*, *student interactions with faculty members*, and *enriching educational experiences*.
- Extramural research and development expenditures, which rose from \$58 million in 2002 to \$63 million in 2003. The university's goal for 2003 was \$55 million.

UofL did not meet its performance goals for:

- The six-year graduation rate of bachelor's degree students, which despite increasing from 32.8 percent in 2002 to 34.9 percent in 2003, remained below the goal of 36.7 percent.
- Several benchmarks in the 2003 National Survey of Student Engagement: First-year students scored lower than predicted on level of *academic challenge*, *active and collaborative learning*, *student interactions with faculty members*, and *supportive campus environment*. Seniors scored lower than predicted on *supportive campus environment*.
- Federal research and development expenditures, which rose from \$39 million in 2002 to \$40 million in 2003. However, UofL did not achieve its 2003 goal of \$43 million.

The 2003 National Survey of Student Engagement also revealed:

- 25 percent of first-year students and 23 percent of seniors participated in a community-based project as part of a regular course, compared with 24 percent and 38 percent in 2001.
- 32 percent of first-year students and 39 percent of seniors participated in volunteer work outside of class, compared with 39 percent and 45 percent in 2001.
- 27 percent of both first-year students and seniors reported their college experience contributed to knowledge, skills, and personal development in contributing to the welfare of the community, compared with 26 percent of first-year students and 33 percent of seniors in 2001.
- 17 percent of first-year students and 14 percent of seniors reported their experiences at UofL contributed to the development of their voting behavior, compared with 25 percent and 29 percent in 2001.

For the purposes of the *Kentucky Plan for Equal Opportunities*:

- In 2002-03, UofL showed continuous progress on seven of eight objectives, qualifying for automatic waiver status (i.e., UofL was automatically eligible to add new degree programs in 2004). Performance for 2003-04 will not be available until January 2005.

Progress Toward National Recognition

The University of Louisville's mission to become a premier, nationally recognized metropolitan research university was embraced in its 1998 strategic plan, the *Challenge for Excellence*, and continues to be the driving force in the university's planning efforts. A "balanced scorecard," which was devised in 1999 to monitor progress on goals and objectives, continues to serve as the management tool that tracks progress on goals and objectives consistent with the mission.

Six strategic themes provide the framework for identifying and measuring indicators of progress: educational experience; research, creative, and scholarly activities; diversity; partnerships and collaborations; and institutional effectiveness. Goals for each of the key indicators of progress have been identified through 2008 for the university as a whole as well as for each academic and support unit. Progress toward goals is measured annually. A complete accounting of UofL's performance on the balanced scorecard is available on its website, www.louisville.edu/president/score.pdf.

The University of Louisville has made significant progress toward national recognition in strategic areas of emphasis as evidenced by the following:

Educational Experience

- Average ACT scores for entering freshmen increased from 23.2 to 23.4 (in 1998 the average ACT score was 21.4).
- Total student scholarship awards have increased from \$29.4 million to \$37.6 million.
- Doctoral degrees awarded have increased from 90 to 106.
- A newly approved Ph.D. in Entrepreneurship admitted its first group of students in fall 2004.
- Graduates of the School of Dentistry have ranked in the top 10 of all U.S. dental education programs on Part 2 of the National Dental Board Examination for the past five years.
- The Debate Team qualified for the 'Sweet 16' of the national championship finishing fifth among all colleges and schools.
- *Consumers Digest* ranked the UofL as one of the 'top 25 values' nationally among public colleges and universities.
- Five students won Fulbright scholarships; five won Japanese Teaching awards; one was a recipient of the Rotary World Peace Scholarship.

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- According to the Fulbright Association, UofL ranks seventh among schools in the South for producing Fulbright research fellows and seventh in the nation for Fulbright English teaching assistantships.

Research, Scholarship, and Creative Activity

- Research grants and contracts increased by 49 percent.
- Endowed chairs increased from 87 to 92.
- The Cardiovascular Innovation Institute, a partnership between the university, Jewish Hospital, the Office of the New Economy, and the federal government, was formalized.
- A partnership between the Speed School of Engineering, the College of Business and Public Administration, and the Cardiovascular Innovation Institute received a Partnership for Innovation award from NSF (\$600,000).
- The School of Medicine received the university's first Program Project Grant (\$7.5 million) from the National Institutes of Health.
- UofL was cited in the *Chronicle of Higher Education* as the second-fastest rising university in a ranking of the top 100 institutions receiving funding from the National Institutes of Health.
- UofL received an \$11.1 million NIH COBRA grant for the cancer program.
- The National Institutes of Health announced a five-year contract worth \$3.7 million to develop a pediatric cardiac assist device system as part of collaboration between the university and Ension.
- UofL was selected by NIH as one of 13 premier pediatric pharmacology research units in the U.S.
- A new research building that includes a clean room core facility will support research in Nanotechnologies and Micro-Electro-Mechanical Systems (MEMS) technologies.
- The Department of Justice Administration received \$2.9 million from the U.S. Department of Justice to establish a Computer Forensics Laboratory on Shelby Campus.
- The School of Nursing was ranked in the top 50 percent of Schools of Nursing in NIH funding.
- A new capital campaign for the James Graham Brown Cancer Center raised \$8.8 million.
- The university libraries' rank in the Association of Research Libraries moved from 97 to 81.

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Diversity

- Since January 2003, 22 African Americans have been hired in faculty positions.
- Through the *Our Highest Potential Program*, the university has filled an endowed chair in cancer research.
- The university completed an institution-wide diversity planning process, which included the development of unit-level diversity plans that will be reviewed each year.

Partnerships and Collaborations

- A University and Community Advisory Board designed to serve the community through expertise in environmental policy, economic development, health care, and education was created.
- An analysis of current partnerships between the academic units at the university and local community identified more than 1,100 partnerships and collaborations.
- The joint appointment of Dr. Adewale Troutman as the director of public health and as a faculty member in UofL's School of Public Health and Information Sciences exemplifies UofL's partnership with Metro Government.
- *Partnership for a Green City* was initiated by UofL President James Ramsey, Louisville Metro Mayor Jerry Abramson, and Jefferson County Public Schools Superintendent Stephen Daeschner to focus on environmental issues important to the community.
- The Department of Justice Administration established a partnership with the U.S. Secret Service to address electronic security within critical infrastructures in an effort to improve homeland security.

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Institutional Effectiveness

- Implementation of *Vision*Focus*Action Plan* has resulted in the enhancement of quality experiences for faculty, staff, and students through programmatic and policy changes. These include the establishment of a Center for Teaching and Learning, creation of an Undergraduate Council, new advising initiatives to improve retention, departmental teaching awards, reorganization of the Career Center, restructuring of advising services, and a plan to improve NSSE scores.

- Assessment procedures that integrate program review and scorecard goals have been implemented.
- Total philanthropic support in outright gifts and pledges totaled \$42.7 million in 2003-04.

Research Challenge Trust Fund Programs

HB 1 created the Research Challenge Trust Fund to support nationally recognized research programs at UK and UofL. UofL submitted an annual report in October 2004, as required by RCTF guidelines, detailing program activities during the 2003–04 fiscal year (available from the Council or UofL upon request). Highlights of the report include:

Early Childhood Research Center

The Interdisciplinary Center for Research on Early Childhood Issues and Initiatives focuses on the assessment of cognitive and language abilities in infants, perinatal risk assessment and infant development, factors affecting intelligence and achievement in pre-school and school-aged children, and prediction of developmental delays. In 2003-04:

- Sponsored research awards totaled approximately \$2.4 million, compared with \$795,000 in 2002-03.
- Thirteen manuscripts were accepted for publication, compared with 36 in 2002-03.
- Twenty-six collaborative engagements with local, regional, and state agencies/institutions were in place, compared with 25 in 2002-03.
- The Language and Reading Development Research Program was one of 16 research centers across the nation identified by the National Institutes of Child Health and Human Development's Reading Research Program.
- The Center with Neuronetrix developed a commercial, cost-efficient, and effective device for the universal screening of newborn infants for speech sound discrimination.

In FY05, the Interdisciplinary Early Childhood Research Center will continue research projects addressing empirical questions in two core areas: growth and development of pre-school abilities in reading and mathematics skills essential for early academic achievement, and the effectiveness of early childhood education and childcare programs in facilitating academic readiness skills.

Institute for Entrepreneurial Research

The Entrepreneurship Program at UofL's College of Business and Public Administration, a nationally-ranked program, is modeled on real-world business conditions. In 2003-04:

- Eight manuscripts, four book chapters, and four books were accepted for publication, compared with 11 manuscripts and two books in 2002-03.
- The Institute for Entrepreneurial Research, a collaborative research effort among 20 College of Business and Public Administration faculty, continues its research efforts and community entrepreneurial outreach.
- The international MBA program, which has an entrepreneurial emphasis, had students enrolled in the Athens and Panama programs.
- A Ph.D. program in entrepreneurship started in fall 2004 with an enrollment of six students.
- The university sponsored the 7th annual New Venture Competition, a collegiate business plan competition, with monetary awards provided by Commonwealth Industries.

Next year, the university will continue its focus on business plan development with MetaCyte and the engineering and medical programs at UofL, and it will leverage the expertise of MBS students to assist the entrepreneurial efforts of the region's small businesses. UofL will double the number of doctoral students. Ph.D. students will participate in an NSF-funded program with the Cardiovascular Innovation Institute to train bioengineering students and medical researchers to recognize the commercial potential of heart devices.

Logistics and Distribution Institute

The Logistics and Distribution Institute (LoDI) is responsible for sustaining a high-quality research environment by facilitating interdisciplinary and applications-oriented research to benefit the Louisville academic and business communities. LoDI also has developed cutting-edge instructional programs and curricula for students and local business employees seeking career-long education and training in logistics and distribution. In 2003-04:

- Sponsored research awards totaled \$341,328, compared with \$1.3 million in 2002-03.

The Entrepreneurship Program at UofL's College of Business and Public Administration, a nationally-ranked program, is modeled on real-world business conditions.

- Twenty-two manuscripts and two book chapters were accepted for publication, compared with 54 manuscripts and two books in 2002-03.
- A graduate certificate program in logistics and distribution was implemented.
- Partnerships include the Center for Engineering Logistics and Distribution (CELDi), an NSF sponsored Industry/University Cooperative Research Center (I/UCRC). CELDi is a four-university consortium that includes UofL, the University of Arkansas, Oklahoma University, and Oklahoma State University. UofL faculty were involved in five projects.
- LoDI continued collaboration with the Louisville Logistics Network formed by Greater Louisville Inc.

During the past year, LoDI underwent a major reorganization and in August 2004 hired Wayne Whitworth as the full-time executive director. His primary responsibility is to develop relations between LoDI and external entities, companies, and institutions. LoDI is in the early stages of developing a Master's of Science in Supply Chain Management and will offer two "high-level" half-day symposiums targeted at senior-level logistics and supply chain management executives in the region. LoDI will pursue private grants to support applied research.

Molecular Medicine and Biotechnology

This program consists of seven focus areas: Oncology Research, Neuroscience Research, Ophthalmology and Visual Sciences Research, Genetics and Molecular Medicine Research, Cardiovascular Disease Research, Bioengineering and Health Services and Policy Research including public health and law. Biomedical research at UofL involves interactions among faculty throughout the health sciences (medical, dental, nursing, public health and information sciences, James Graham Brown Cancer Center, bioethics, and health policy and law) and faculty in the J.B. Speed School of Engineering, College of Arts and Sciences and the Kent School of Social Work. The Molecular Medicine and Biotechnology program has 94 full-time faculty members, including five newly hired faculty members in 2004. In 2003-04:

- Sponsored research awards totaled \$45.7 million, compared with \$34 million in 2002-03.
- A total of 472 manuscripts were accepted for publication, compared with 407 in 2002-03.

- The UofL Medical School improved its rank in NIH funding from 94th of 124 medical schools in 1999 to 73rd of 121 medical schools in 2003. Most of this improvement is due to faculty who are part of the Molecular Medicine and Biotechnology Program of Distinction.
- The James Graham Brown Cancer Center was awarded an NIH Planning Grant to work toward the goal of becoming an NCI designated cancer center.
- The Center for Environmental Cardiology received the first Program Project Grant in the School of Medicine history.

Next year the Molecular Medicine and Biotechnology Program will focus on continued improvement of infrastructure and increased funding to enable the clinical sciences research faculty to build programs of strength. It will establish a Department of Bioengineering, break ground for the Cardiovascular Innovation Institute, and continue renovation of HSC research space.

Major Initiatives for 2004-05

UofL's strategic plan was designed to span a ten-year period. In the past year, the university has updated its strategic plan through a revision of the balanced scorecard. In addition, each academic and support unit has designed a plan to support UofL's mission to become a nationally recognized premier metropolitan research university. Major initiatives for 2004-05 are designed around the following key indicators of progress: student success, advancement of the research agenda, diversity, partnerships and collaborations, and economic development.

Student Success

The University of Louisville reaffirms its commitment to excellence in education and teaching as set forth in the *Challenge for Excellence: Full Speed Ahead*. In 2004-05 UofL will:

- Build on success of *Vision*Focus*Action Plan* to improve the quality of programs and services and enhance the academic environment and campus culture. Advising, retention, and career counseling services will receive special emphasis.
- Improve freshmen and second-to-third year student retention rates.
- Attract and retain the best and brightest students. Indicators of

progress in this area will include the improvement of average ACT scores.

- Produce 115 doctoral graduates.
- Continue development of the Center for Teaching and Learning.
- Complete construction of the \$14 million library expansion, the natatorium, and the baseball stadium.

Research Agenda

Cutting edge research enhances the quality of teaching, supports economic development and provides service to the community. UofL has a strong commitment to the continued development of its research programs. In 2004-05 UofL will:

- Build the research enterprise by increasing total research grants and contract funding by at least 14 percent.
- Implement the Cancer Center growth plan for NCI designation.
- Implement the Cardiovascular Innovation Institute.
- Complete construction of the Belknap Research Building, which will contain a state-of-the-art clean room.
- Establish a Bio-engineering Department.
- Seek funding for a BL-3 facility from NIH.
- Enhance the Structural Biology Program through infrastructure investments in metabolomics.
- Expand partnerships between UofL and industry in logistics and distribution research.
- Conduct research on effective school reform practice and policies that relate to achieving goals of *No Child Left Behind*.

Diversity

UofL strives to create a welcoming campus atmosphere where every student, faculty member, and staff member has the maximum support, respect and opportunity to be successful. In 2004-05 UofL will:

- Meet eight of eight diversity objectives set by the Council on Postsecondary Education in the *Kentucky Plan for Equal Opportunities*.
- Monitor and ensure implementation of university-wide and unit-specific diversity plans.

- Recruit chair positions for Our Highest Potential Initiatives.

Partnerships and Collaborations

UofL will continue to serve the community by providing expertise in environmental policy, economic development, health care, education, and other areas affecting quality of life. In 2004-05 UofL will:

- Encourage success of the University and Community Advisory Board in identifying sustainable, systemic, and significant ways to address environmental policy, economic development, health care, and education with its metropolitan partners.
- Develop evaluation criteria for these partnerships and collaborations.

Economic Development

UofL supports economic growth through policies, programs and infrastructure that: encourage the development of new businesses; support faculty to use their expertise to develop small businesses; and develop collaborations, partnerships, incubator, and start-up support. In 2004-05 UofL will:

- Assume a leadership role in building the life sciences industry in the community and state.
- Develop a Life Sciences Venture Fund focused on investments in Kentucky.
- Implement a plan for the development of the Shelby Research and Technology Park.
- Advance the creation of an Institute for Innovation in Advance Materials Technology for Manufacturing.
- Build on success in the College of Business and Public Administration in the area of entrepreneurship by focusing on small business and start-up company development.
- Create a University Arts and Humanities Council to support the social, cultural, and artistic fiber of the community and enhance the quality of life.

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